WebGL MiniFramework Version1

Main

- init
  - create Camera and set its properties
  - for each object in the scene
    - create program and set its properties
    - create material
    - create mesh
    - create sceneObject with this mesh and material
- update
  - update camera
  - drawSceneObjects(renders all sceneObjects)

Camera

- update
  - clearScene
  - calculate viewMatrix
- clearScene
  - set viewPort
  - set perspective matrix
- calculateViewMatrix

Material

- draw
  - program.prepareRender
  - communication with vertex attributes
  - set custom uniforms
  - call drawElements

Mesh

- Create and fill the necesssary buffers for mesh
  - vertexBuffer
  - indexBuffer
  - colorBuffer
  - etc...
- Functions for creating meshes
  - createPyramidMesh
  - createBoxMesh
  - etc…
- Function for loading external meshes

Program

- InitShader process
  - Get shader source
  - Compile shaders
  - Create program
  - Attach shaders to the program
  - Link program
- get shader variable locations
  - attribute location
  - uniform location
- prepareRender (modelMatrix, camera)
  - set projection matrix uniform
  - calculate modelViewMatrix and set modelViewMatrixUniform

SceneObject(mesh, material)

- calculate model matrix
- render
  - calculateModelMatrix
  - material.draw
- push this to window.sceneObjects
- drawSceneObjects
  - render all sceneObjects